



State of Montana
Department of Agriculture

Agency IT Plan
Fiscal Year 2012-2017

May 2012

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EXECUTIVE SUMMARY

Agriculture is the financial engine that drives Montana's economy, bringing in more than \$2.5 billion in annual receipts plus other benefits to rural communities and our state. One in five Montana workers is employed in agriculture or a related field. All Montanans consume agricultural products.

As a longtime student of economics and change in agriculture, my primary objective as director of the Montana Department of Agriculture is to work with family farmers and ranchers, entrepreneurs, and agriculture-related industries to take advantage of the technological opportunities available to improve the way they do business. We intend to continue to develop forward-thinking, innovative ways to deliver efficient and effective services to our Montana producers and consumers.

We are continuing our initiative to update our licensing, registration, and enforcement system which will make more of our services available online, something the agricultural community increasingly expects.

We will continue and expand our successful IT partnerships and collaborations to maximize effective use of agency funds in supporting the agricultural community. We will investigate, implement and apply appropriate mobile technology to improve citizen and employee access to agricultural information. We will continue to expand our use of Geographical Information Systems (GIS) to provide location based agricultural information for promoting Montana's agricultural industries and practices.

We are excited about tackling the challenges of implementing these technology initiatives which will allow us to better serve the agricultural community and the citizens of Montana.

Respectfully submitted,



Ron de Yong, Director

SECTION 1: AGENCY ADMINISTRATIVE INFORMATION

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IT Inventory

As required by MCA 2-17-524(3)(c) the IT inventory database located at <http://mine.mt.gov/enterpriseitinventory> will be updated by June 30th, 2012.

SECTION 2: AGENCY IT MISSION

The mission of the Montana Department of Agriculture's Information Technology (IT) services is to support department operations by ensuring the Department's business process IT needs are met and are secure.

SECTION 3: AGENCY REQUIRED PROGRAMS

Information Security Management (ISM) Program General Description

The Montana Department of Agriculture has implemented a department-wide (agency) information security management program compliant with §2-15-114, MCA and State Information Technology Systems Division *Information Security Programs* policy with adoption of the National Institute of Standards and Technology (NIST) Special Publication 800 series as guides for establishing appropriate security procedures. This is in alignment with the State of Information Technology Service's direction for an enterprise approach to protect sensitive and critical information being housed and shared on State and/or external/commercial information assets or systems.

As described in NIST SP 800-39, the agency has developed and adopted the Information Risk Management Strategy to guide the agency through information security lifecycle architecture with application of risk management. This structure provides a programmatic approach to reducing the level of risk to an acceptable level, while ensuring legal and regulatory mandates are met in accordance with MCA §2-15-114.

The agency's program has four components, which interact with each other in a continuous improvement cycle. They are as follows:

- Risk Frame – Establishes the context for making risk-based decisions
- Risk Assessment – Addresses how the agency will assess risk within the context of the risk frame; identifying threats, harm, impact, vulnerabilities and likelihood of occurrence
- Risk Response – Addresses how the agency responds to risk once the level of risk is determined based on the results of the risk assessment; e.g., avoid, mitigate, accept risk, share or transfer
- Risk Monitoring – Addresses how the agency monitors risk over time; "Are we achieving desired outcomes?"

The agency's information security management program is challenged with limited resources; manpower and funding. While alternatives are reviewed and mitigation efforts are implemented the level of acceptable risk is constantly challenged by the ever changing technology and associated risks from growing attacks and social structure changes. Specific vulnerabilities have been identified which require restructure, new equipment, or personnel positions (funds increase), and are addressed below in our future plans. >

Future Security Program Plans

Participate in the Department's effort to formalize a Risk Management Strategy Document with a focus on minimizing and controlling sensitive information.

Participate in the Department's annual Verification and Validation of the Risk Management Strategy, and collaborate on updates as determined by legal changes, tech changes, or record retention issues.

Continuity of Operations (COOP) Capability Program General Description

Since October 2012, the department has worked with the Department of Administration on Block 1, Phase 1 development of our agency's portion of the Continuity of Operations Planning effort to facilitate recovery after an incident that disrupts essential functions of government. This program involves two blocks of focus. The first is to complete the business continuity plans and a listing of department resources. The second is on specific business processes or activity plans such as EAPs, information contingency plans, communications plans, and the like. By the end of calendar year 2012, we intend to complete Block 1 in this statewide planning effort.

This program is not a standalone process in that information which is identified and recorded under this structure can and often exists in the Records Management Program and associates with Information Security Management Program requirements.

Integration of these three programs is critical to the confidentiality, integrity, and availability of information which is associated with each program.

Future COOP Program Plans

Continue to work with Department of Administration to complete the COOP implementation plan.

SECTION 4: AGENCY IT PLAN – GOALS & OBJECTIVES

Goal Number 1: Achieve maximum value of information through the active management of information technology

ITG 1

Description: Expand the use of shared resources including personnel, information, expertise and data.

Benefits: Share IT resources to achieve economies of scale

Supporting Objective/Action

Objective 1 Increase use of consolidated platforms and shared services

Action: Replace Network File and Print Servers, co-locate servers at SMDC

Supports Business Requirement: Supports all agency business goals and objectives

Benefits: Implement best IT practices in relation to no single point of failure on the Agency data infrastructure. Eliminate excessive costs and duplication of effort by having co-location at SMDC coincide with the replacement cycle of server equipment.

Risk: Not replacing old equipment jeopardizes continuity of service.

Timeframe for completion: FY 2015

Measures: Users successfully login and are able to access data volumes. Backup of file and print servers successfully tested.

Objective 2 Strengthen and expand information technology partnerships

Action: Collaborate with other agencies to expand the enterprise usage of the FundingMT Grant Management enterprise system.

Supports Business Requirement: Provide an enterprise collaboration of agencies sharing a single web portal and application for managing grants and loans.

Benefits: Enhance the capability for the Noxious Weed and Growth Through Agriculture programs to provide funding for weed management efforts throughout the state. Collaborating with other agencies should provide for economies of scale for all participants.

Risks: System was implemented in FY2012 with the Departments of Agriculture, Commerce, Natural Resources & Conservation and Fish, Wildlife & Parks participating. The risk to expanding the usage of the system to other state agencies is limited to the scalability of the system.

Timeframe for completion: ongoing

Measures: Additional agencies or additional agency grant programs utilizing FundingMT Grants Management enterprise system.

Objective 3 Recruit, train and retain a highly skilled workforce

Action: Explore and implement technology to enhance accessibility, availability and usability of information, leveraging robust technology platforms providing citizens and employees access to information however and whenever they need it. Provide access to training and mobile technology devices for developing skillsets in implementing mobile technology and applications within the Department programs.

Supports Business Requirement: Many of the Department programs require employees to work in remote offices and out in the field. Mobile access to data and database systems is critical to the work.

Benefits: Provide direct access to Department data and data systems while staff is at remote locations, without hardwired access to the Department data systems.

Risks: Not developing this skillset will prevent the Department from analyzing and implementing quality mobile technology for future systems.

Timeframe for completion: ongoing

Goal Number 2: Aggressively use technology to extend capabilities that enhance, improve and streamline service delivery

ITG 2

Description: It is imperative the department continues to provide the agricultural industry with the services they need and want in an efficient and effective manner.

Benefits: Work to reduce the cost of duplicated effort and eliminate duplicated data and applications.

Supporting Objective/Action

Objective 1 Seek out and implement innovative information technology solutions

Action: Contract with vendor to replace the existing Department Licensing, Registration and Certification data system.

Supports Business Requirement:

Protect the consumer by assuring that commercial feeds are correctly and truthfully labeled, contain safe ingredients, and feeds meet nutritional standards.

Protect the consumer by assuring that fertilizers are correctly and truthfully labeled, and by assuring that fertilizer products contain allowed ingredients and products are effective when used as directed.

Provide good sound pesticide management in Montana by promoting safety; protecting agriculture, the environment and human health; assuring that pesticides are available for agricultural production; ensuring compliance with the Montana Pesticides Act and the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA); ensuring pesticides are sold and used by trained, qualified license/certified persons by providing

training, educational manuals and materials; and, protecting farm workers/handlers.

Register annually, federally registered pesticide products for use in Montana and register products as needed for special local needs (Federal Insecticide Fungicide Rodenticide Act Section 24(c)) and emergency pest problems (FIFRA Section 18).

Register pet food products in a prompt and efficient manner.

Register fertilizers in a prompt and efficient manner.

Register apiaries in a prompt and efficient manner.

Risks: Expensive to implement, COTS application may not support all Licensing, Registration and Certification processes requiring customization of the COTS product, IT Staff turnover would adversely affect the ability to complete this project on time

Timeframe for completion: FY 2012 start – FY 2015 completion

Measures:

Vendor selection - Completed

Completion of User Acceptance Testing and system live on the web. Registrations, Licenses and Certifications accessed by consumers via the web.

Objective 2 Increase use of seamless cross-boundary information solutions

Action: Implement a GIS user interface for FundingMT Grant Management enterprise system

Supports Business Requirement: Assist with the management of land and water based weeds through the Noxious Weed Trust Fund grant program.

Benefits:

Providing a GIS data entry capability will enable applicants to submit project boundary and location data directly into the Grant Management database. Having the GIS data stored as spatially enabled geometry data, directly related to application and grant data will enable analysis, sharing and mapping to be provided from the electronic data rather than having to manually digitize scanned or hardcopy images.

Risks:

The Grant Management system is vendor hosted commercial-off-the-shelf (COTS) application. Because the vendor holds the rights to the intellectual property, the GIS interface will need to be a solution that the vendor approves.

Timeframe:

It is anticipated to use a phased approach to implementation of a fully integrated GIS interface to the COTS application.

1. Design and implementation concept approval from vendor
2. Address geocoding – define and utilize an address geocoding web service
3. Point location mapping from Latitude/Longitude values (decimal, not spatially enabled) from database.
4. Provide GIS data file (commonly used formats) upload/export to/from Grant Management system to existing mapping services and/or applications.
5. Provide interactive end-user interface to allow applicants to draw grant project boundaries (polygons), trails (line segments) and point locations directly to the Grant Management system.

The timeframe is dependent upon the vendor and cannot be definitively identified. The anticipated

schedule is:

1. Early FY13
2. Mid FY13
3. Late FY13
4. Early FY14
5. Late FY14

The GIS interface will be completed and proven successful when a grant applicant is able to create and submit a project map as part of the grant application interface.

SECTION 5: IT INITIATIVES (FY2012 – FY 2017)

Initiative 1 Replace ASD Licensing, Registration and Certification system

Description: Replace the existing custom legacy system with a COTS licensing, registration and certification system

EPP Number (if applicable): This initiative was funded during the 2013 Biennium.

SECTION 6: ENTERPRISE ALIGNMENT

Communities of Interest Participation

- ☒ Government Services
- ☐ Public Safety
- ☐ Human Resources
- ☐ Environmental
- ☐ Education
- ☐ Economic
- ☐ Cultural Affairs
- ☐ Finance

SECTION 7: PLANNED AGENCY IT EXPENDITURES

<u>Expense Category</u>	<u>FY2012</u>	<u>FY2013</u>	<u>FY2014</u>	<u>FY2015</u>	<u>FY2016</u>	<u>FY2017</u>
Personal Services	421,000	421,000	434,000	434,000	447,000	447,000
Operating Expenses	420,000	420,000	432,000	432,000	445,000	445,000
Initiatives	560,000					
Other expenditures						
Totals	1,401,000	841,000	866,000	866,000	892,000	892,000

SECTION 8: ADDITIONAL INFORMATION - OPTIONAL